

#5/1

I. AMENDMENTS

In the Claims:

Please cancel claims 6, 13, and 15. Please replace claims 1-5, 7-12, 14, and 16-18 with the following clean set of amended claims. A mark-up version of the amended claims 1-5, 7-12, 14, and 16-18 is attached hereto.

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1. (Amended) A method for isolating hemoglobin from a solution containing red blood cells within a container, the method comprising the steps of:
 - (a) separating the red blood cells from the solution;
 - (b) washing the red blood cells in a wash solution;
 - (c) lysing the red blood cells to produce stromata and a hemolysate containing hemoglobin having an ionic strength, wherein said lysing step further comprises measuring the ionic strength of the hemolysate formed by exposing the red blood cells to a hypotonic solution; and
 - (d) separating the hemolysate from the stromata;wherein steps (c) and (d) are simultaneously carried out or sequentially repeated until the ionic strength of the hemolysate is below a predetermined level.
 2. (Amended) The method of claim 1, wherein the wash solution further comprises a normal saline solution.
 3. (Amended) The method of claim 1, wherein the wash solution further comprises an agent for killing bacteria.
 4. (Amended) The method of claim 1, wherein the wash solution further comprises an agent to remove or inactivate organisms.
 5. (Amended) The method of claim 1, wherein steps (a) through (d) are performed within a single processing container.

7. (Amended) A method performed within a cell processing apparatus for isolating hemoglobin from a solution containing red blood cells and plasma, the method comprising the steps of:

collecting the solution in a sterile processing set comprising a processing bag and a tube harness, wherein the processing bag is disposed within a centrifuge in the cell processing apparatus;

separating the red blood cells from the plasma by rotating the processing bag within the centrifuge;

expressing the plasma from the processing bag;

introducing a washing solution into the processing bag to wash the red blood cells;

expressing the supernatant after washing;

lysing the red blood cells to produce stromata and a hemolysate containing hemoglobin having an ionic strength, wherein said lysing step further comprises exposing the red blood cells to a hypotonic solution;

separating the hemolysate from the stromata by rotating the processing bag in the centrifuge; and

removing the hemolysate through a sterile port in the processing bag.

8. (Amended) The method of claim 7, wherein the step of separating the hemolysate from the stromata further comprises the steps of:

removing the hemolysate produced when the hypotonic solution initially contacts the red blood cells; and

continually removing additional hemolysate produced as the ionic strength of the hemolysate decreases.

9. (Amended) The method of claim 8, further comprising the steps of:

measuring the ionic strength of the hemolysate;

adding additional hypotonic solution; and

simultaneously carrying out or repeating the steps of adding additional hypotonic solution and removing hemolysate until the ionic strength is below a predetermined level.

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10. (Amended) A method for isolating hemoglobin from a solution containing red blood cells within a processing container in a cell processing apparatus, the method comprising the steps of:

washing the red blood cells in the processing container with a saline solution;

lysing the red blood cells in the processing container to produce stromata and a hemolysate containing hemoglobin having an ionic strength, wherein said lysing step further comprises measuring the ionic strength of the hemolysate formed by exposing the red blood cells to a hypotonic solution; and

separating the hemolysate from the stromata and red blood cells within the processing container; and

extracting the hemolysate from the processing container;

wherein the steps of lysing and separating are simultaneously carried out or sequentially repeated until the ionic strength of the hemolysate is below a predetermined level.

11. (Amended) The method of claim 10, wherein the step of separating further comprises centrifuging the processing container within the apparatus to pack the stromata and red blood cells.

12. (Amended) The method of claim 10, wherein the step of washing further comprises adding a detergent, antibacterial or antiviral agent to the saline solution.

14. (Amended) A method for preparing a modified hemoglobin solution comprising the steps of:

mixing red blood cells with saline solution;

lysing the red blood cells to produce stromata and a hemolysate containing hemoglobin having an ionic strength, wherein said lysing step further comprises exposing the red blood cells to a hypotonic solution;

separating the hemolysate from the stromata; and

mixing the hemolysate with a reagent adapted to chemically modify the hemoglobin to form a chemically modified hemoglobin solution.

16. (Amended) The method of claim 14, wherein the reagent comprises activated polyethylene glycol.

17. (Amended) The method of claim 14, further comprising filtering the chemically modified hemoglobin solution.

18. (Amended) The method of claim 14, further comprising sterilizing the chemically modified hemoglobin solution.

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